

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appl. No. 10/665,432  
Attorney Docket No. Q77419

**REMARKS**

In the present amendment, the Abstract has been amended to employ proper language and format.

Claim 1 has been amended to recite that the lower limit of the decomposition starting temperature is 250 degrees Centigrade, rather than 190 degrees Centigrade. Support for this amendment may be found, for example, at page 5, line 5 of the specification and in original claim 8.

In accordance with the amendment to claim 1, claim 8 has been cancelled.

Upon entry of the amendments, which is respectfully requested, claims 1-7 and 9-20 will be pending.

In Paragraph No. 1 of the Action, the Examiner states that the Information Disclosure Statement filed February 17, 2004, fails to comply with the rules. The Examiner states that the IDS has been placed in the application file, but the information referred to therein has not been considered. Further, the Examiner states: "There are Japanese references that are contained in the specification that are not listed on the Information Disclosure Statement."

This paragraph of the Action is inconsistent with the Examiner's return of the initialed Form PTO/SB/08 filed with the IDS of February 17, 2004, because returning the initialed Form to Applicants is a confirmation that the listed documents have been considered and made of record. Applicants believe the Examiner meant to say that the documents listed in the IDS have been considered, but that other documents which are identified in the specification but not listed

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/665,432  
Attorney Docket No. Q77419

in the IDS have not been considered and may not be considered unless an IDS listing such documents is submitted.

While Applicants believe that this is what the Examiner meant to say, Applicants respectfully request clarification of the Examiner's position.

In Paragraph No. 2 of the Action, the Examiner reminds Applicants of the proper language and format for an Abstract of the Disclosure.

In response, Applicants have amended the Abstract to employ proper language and format.

In Paragraph No. 4 of the Action, claims 1-4 and 8-10 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Kawasumi et al (U.S. Patent No. 4,810,734).

Kawasumi et al was listed on Applicants' Information Disclosure Statement. The Examiner states that Kawasumi et al discloses a composite material that is composed of a polymer and a layered silicate as per present claim 1, citing column 1, line 67 to column 2, line 2 of Kawasumi et al. Per the Examiner, Kawasumi et al discloses that the silicate is modified so as to connect to the polymer. (See Kawasumi et al at column 3, lines 20-32.) Further, the Examiner states, Kawasumi et al discloses that the silicate can be modified with a quaternary salt of a nitrogen compound such as methacryloyloxyethyltrimethylammonium chloride or compounds that have a trimethyl phosphonium oxide as per present claims 8-10. The Examiner cites Kawasumi et al at column 3, lines 20-68. Lastly, the Examiner states that Kawasumi et al claim 6 discloses that the polymer can be a polycarbonate or a polyether sulfone as per present claims 1-4.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/665,432  
Attorney Docket No. Q77419

While not expressly stated in the Action, the anticipation rejection of claims 1-4 and 8-10 is based upon a theory of inherency.

In Paragraph No. 6 of the Action, claims 1-20 are provisionally rejected for obviousness-type double patenting as allegedly being unpatentable over claims 1-13 of co-pending Application No. 10/606,236.

In response to the rejection based on Kawasumi et al, Applicants respectfully traverse the rejection on the basis that the organic modified layered silicates disclosed in Kawasumi et al do not necessarily (i.e., inherently) have a decomposition starting temperature of 250°C to 350°C. In this regard, the present specification states that the decomposition starting temperatures of conventional organic modified layered silicates are lower than 190°C. See page 10, lines 2-5 of the present specification.

As to the obviousness-type double patenting rejection based on co-pending Application No. 10/606,236, Applicants respectfully traverse this rejection also. The Examiner does not point out where the claims of the co-pending application disclose or suggest employing an organic modified layered silicate that has a decomposition starting temperature of 250°C to 350°C. Given the express recitation of this limitation in present claim 1 and the explanation at page 10 of the present specification that the decomposition starting temperatures of conventional organic modified layered silicates are lower than 190°C, the Examiner will appreciate that the subject matter of the present claims is not merely an obvious variant of the subject matter of claims 1-13 of co-pending Application No. 10/606,236.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/665,432  
Attorney Docket No. Q77419

In support of the patentability of the present invention over Kawasumi et al and claims 1-13 of co-pending Application No. 10/606,236, Applicants submit herewith an executed Declaration Under 37 C.F.R. § 1.132 of Mr. Hideaki Naruse, the first-named inventor of the present invention.

As explained in his Declaration, Mr. Naruse measured the decomposition starting temperatures of five comparative organic modified layered silicate samples (Organic Modified Layered Silicates A-E) that are representative of Kawasumi et al and U.S. Application No. 10/606,236. The results of the experiments show that the measured decomposition starting temperatures of the samples corresponding to Kawasumi et al and the co-pending '236 application are outside the presently claimed range of 250°C to 350°C. Based on the experimental results, Mr. Naruse states that Kawasumi et al fails to disclose or suggest the claimed organic modified layered silicates having decomposition starting temperature within the presently recited range. Similarly, he states that the presently claimed organic modified layered silicates are not disclosed or suggested by the co-pending '236 application.

The table at page 3 of Mr. Naruse's Declaration provides the experimental results for the decomposition starting temperatures of Comparative Samples A-E. Comparative Samples A and B are representative of Kawasumi et al, while Comparative Samples C, D and E are representative of the co-pending '236 application. See the "EXPERIMENT AND RESULTS" section at pages 2-3 of the declaration and the "DISCUSSION" section at pages 3-4 of the Declaration. As Mr. Naruse states in the first paragraph of the "DISCUSSION" section on page 3 of his Declaration, the results presented in the table show that the organic modified layered

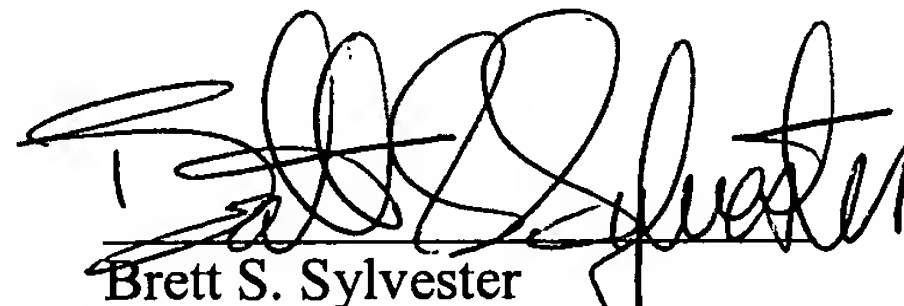
AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/665,432  
Attorney Docket No. Q77419

silicates A-E representative of Kawasumi et al and the co-pending '236 application have decomposition starting temperatures of 191°C or lower, which is outside the presently claimed range of the 250-350°C.

In view of the above, Applicants respectfully submit that the §102(b) rejection of claims 1-4 and 8-10 based on Kawasumi et al and the obviousness-typed double patenting rejection of claims 1-20 in view of claims 1-13 of the co-pending '236 application should be reconsidered and withdrawn.

Allowance is respectfully requested.

Respectfully submitted,

  
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